

# Prevalence and Correlate of High Suicidal Ideation among People Living With HIV/Aids in Osogbo, South-Western Nigeria

B.A Eegunranti<sup>1</sup>, J. O. Bamidele<sup>2</sup>, J. Falade<sup>3</sup>, A. C. Ogundiran<sup>4</sup>, O. Ibigbami<sup>5</sup>, O. O. Falade<sup>6</sup>, O. Ogundiran<sup>7\*</sup>

<sup>1</sup>Department of Psychiatry, LAUTECH Teaching Hospital, Osogbo, Osun State, Nigeria

<sup>2</sup>Department of Community Medicine, Ekiti State University, Ado-Ekiti, Ekiti State, Nigeria

<sup>3</sup>Department of Mental Health, Afe Babalola University, Ado Ekiti, Ekiti State, Nigeria

<sup>4</sup>Counselling / Accounting Unit, EPHPHATHA Audiological Clinic, Osogbo, Osun State, Nigeria

<sup>5</sup>Department of Mental Health, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria

<sup>6</sup>School of Nursing, Osun State Hospitals' Management Board, Osogbo, Nigeria

<sup>7</sup>Department of Otorhinolaryngology, Head and Neck Surgery, LAUTECH Teaching Hospital, Osogbo - Osun State, Nigeria

\*Corresponding Author: Dr. Olawale Ogundiran

Department of Otorhinolaryngology, Head and Neck Surgery, LAUTECH Teaching Hospital, Idi-Seke / College of Health Sciences, Isale-Osun, Osogbo - Osun State, Nigeria

**Abstract:** Persistent suicidal thoughts with additional feelings of hopelessness and intent to die are very serious and must be assessed promptly and carefully among people living with HIV/AIDS

The prevalence and the correlate of suicidal ideation and attempt were assessed among people living with HIV/AIDS in Osogbo Nigeria.

Three hundred and twenty-six people living with HIV/AIDS attending the Institute of Human Virology of Nigeria, Lautech Teaching Hospital Osogbo were recruited into the study.

Each respondent filled the socio-demographic questionnaire, suicidal screening scale. The Statistical Package for Social Science (SPSS) software (version 21) was used for the analysis.

The prevalence of high suicidal ideation among the respondent is 12.6%. The study revealed that the risk of high suicidal ideation was 0.21 fold less among those between the ages of 41 to 60 compared with those above 60 years (B=-1.1519, P=0.010). In addition, the risk of high suicidal ideation was 52.6 fold increase among the students (B=3.963, P = 0.001), 5.85fold increase among civil servants (B=1.702, P = 0.039 and 11.37 fold increase among artisan compared with the traders along. (B=2.427, P = 0.005). Those with psychiatric morbidity had 3.44 fold increase high suicidal ideation compared with those without psychiatric morbidity (B= 1.237, P value=0.006).

The results of this study show that patients with HIV/AIDS receiving follow-up care experience considerable undetected psychiatric morbidity and suicidal ideation. Collaborative effort must be targeted towards the provision of a welfare scheme and reduction of comorbidity associate with HIV infection.

**Keywords:** Suicidal ideation, Psychiatric morbidity, Human immunodeficiency virus, Acquire immunodeficiency syndrome

## I. INTRODUCTION

The occurrence of suicide has an unremitting interest in the general and scientific community over many years ranking among the top ten causes of mortality in the developed world provoking a myriad of psychological, legal and ethical consequences [1]. Fleeting suicide thoughts are common to some people throughout the course of HIV disease and often do not indicate a significant risk of suicide. However, insistent suicidal thoughts with additional feelings of hopelessness and intent to die are very serious and must be assessed promptly and carefully [2].

Suicidal ideation is thought about or an unusual preoccupation with suicide, which varies from brief to detailed planning, self-harm to death [3]. Suicidal ideation among HIV-positive persons are significantly raised [4] even in assessment with lifetime prevalence estimates for the general population [5, 6]. Studied sample of HIV- positive men, recruited from HIV/AIDS community-based service organizations in Texas, they reported that Fifty-nine percent of the sample reported ever thinking about suicide, and fifty percent of those individuals reported attempting suicide at some point in their lives [7]. In the same vein, Carricoet al., 2007 reported that approximately one-fifth of HIV/AIDS patients in four US cities reported thoughts of suicide in the past week they observed that homosexuals, rated HIV- related symptoms and medication side effects as more severe, reported regular marijuana use, and described elevated affective symptoms of depression were those who were more likely to report suicidal ideation [5]. Conversely, participants who identified as Hispanic/Latino, individuals in a primary loving relationship, and those who reported greater self-efficacy for coping were less likely to report suicidal ideation [5]. Haller et al found suicidality among sixty-eight percent of participants in an

HIV mental health clinic. Twenty-six percent had suicidal thoughts within 30 days of admission, forty-nine percent had a plan, and forty-eight percent expressed intent stating there was a moderate or high likelihood they would take action [8]. Suicide risk among patients receiving treatment for HIV in Brazil was fifty-six percent. Suicide risk was associated with non-white skin color and unemployment [9]. In Texas, Kinyanda et al. studied HIV-positive men, recruited from HIV/AIDS community-based service organizations; they found that fifty percent reported attempting suicide at some point in their lives. Suicide ideation and attempts were more common among white participants [10].

Preau et al found that twenty-three percent among people living with HIV in France had a suicide attempt. Female gender, younger age, native French citizenship, reporting household financial difficulties, having been HIV-contaminated through homosexual contact or through injection drug use and suffering from lipodystrophy-related symptoms were all independently associated with attempted [11].

In Africa, Rochat et al. reported that suicide ideation among HIV/AIDS patients was 27.5%, in addition, age, previous history of depression, and current depression were significantly associated with suicide ideation. There was an equal prevalence of suicidal ideation among HIV-positive and negative women [12]. Suicide methods were frequently violent and most women mentioned family and partnership conflict related to an unplanned pregnancy or their newly HIV-positive status as triggers to their suicide ideation [13]. Factors associated with MHS were: female gender, food insecurity, increasing negative life events, high-stress score, negative coping style, past psychiatric history, psychosocial impairment, diagnoses of post-traumatic stress disorder, generalized anxiety disorder, and major depressive disorder. Factors independently associated with MHS were female gender, increasing negative life events, a previous psychiatric history, and major depressive disorder [10].

Shittu et al. found in a Nigerian study that 17.1% of HIV/AIDS patients were hopeless, 16.5% had at one time or the other thought of taking their lives, 3.5% had a suicide attempt. There was a strong association between depression, hopelessness, thought of taking life, and plan to take their lives [2]. Similarly, Ogundipe et al, reported a prevalence of 13.6% of suicidal ideation among People Living With HIV/AIDS (PLWHA) associated factors were singles, poor medication adherence, and poorer quality of life were associated with suicidal ideation; while unemployment, emotional distress, HIV status, non-disclosure, and previous suicidal attempt were not only associated but predictive of suicidal ideation in PLWHA [14]. Another Nigerian study explored suicidality among participants in an HIV mental health clinic. Twenty-six percent (26%) had suicidal thoughts within 30 days of admission, forty-nine percent (49%) had planned it while forty-eight percent (48%) expressed intent stating there was a moderate or high likelihood they would

take action. Individuals with major depression, dysthymia, substance abuse, thought disorder, posttraumatic stress disorder, and borderline and avoidant personality disorders were at increased risk for suicidality whereas those with narcissistic personality disorder were at decreased risk [8]. Chikezie et al, surveyed the prevalence of suicidal ideation and attempt among PLWHAs and compared them with the staff of a local government who acted as controls. Over a third (34.7%) of PLWHAs versus 4% of controls expressed suicidal ideation in the preceding month, with 9.3% attempting suicide in the six months prior to the study. The commonest type of attempt was a drug overdose. Female gender, unemployment, co-morbid illness, living alone and having a partner with the disease were associated with suicidal ideation [15].

Suicide ideation and attempts were more common among People Living with HIV/AIDS. Suicidal behaviors were ubiquitous in this sample suggestive of a need for mental health and suicide interventions targeted for this population [7]. The noteworthy correlations between hopelessness, depression, and suicidal ideation are central indications that should alert clinicians to underlying suicide risk in HIV-positive patients. Clinicians should habitually search about suicidality in PLWHAs to assist early diagnosis and intervention.

The aim of this research is to evaluate the prevalence and correlate of suicidal ideation and attempt among people attending the HIV/AIDS clinic in Ladoke Akintola University of Technology Teaching Hospital Osogbo.

## II. METHODOLOGY

### *Study Location*

The study was carried out at institute of Human Virology, Ladoke Akintola University of Technology Teaching Hospital Osogbo, Osun State, Nigeria. Osun State was carved out of Oyo State in 1991, her capital is located in Osogbo, southwest Nigeria. The State is situated in the tropical rain forest zone. It covers an area of approximately 14,875square kilometers, lies between latitude 7° 30' 0" N and longitude 4° 30' 0" E. Though a landlocked state, she is blessed with the presence of many rivers and streams which serves the water needs of the state. It is bounded by Ogun State to the south, Kwara State to the north, Oyo State to the west and Ekiti and Ondo State to the east. Two of her local governments were used for the purpose of this study.

### *Study Design*

The study employed a cross-sectional descriptive design.

### *Study Population*

The population of this study was patients living with HIV/AIDS attending Institute of Human Virology of Nigeria clinic in Ladoke Akintola University of Technology Teaching Hospital, Osogbo.

### Sample Size

The sample sizes of this study were consented 326 patients that attended the clinic between June and December 2018.

### Instruments

#### Sociodemographic Variable/ Clinical Profile Questionnaire

The questionnaire is designed by the investigator with the permission of the supervisors. The questionnaire consists of the age in years, gender, tribe, marital status, occupation, average monthly income, educational status, religion. The clinical variable of the respondent includes last viral load, reaction to viral load, subjective rating of symptoms severity, and support received.

#### Scale for Suicide Ideation

Suicidal intention scale a 19-item clinical research instrument intended to quantify and assess suicidal intention. The scale was found to have high internal consistency and moderately high correlations with clinical assessments of suicidal risk and self-administered measures of self-harm. Furthermore, it was sensitive to changes in levels of depression and hopelessness over time. Its construct validity was supported by two studies by different investigators testing the relationship between hopelessness, depression, and suicidal ideation and by a study signifying a significant association between the high level of suicidal ideation and "dichotomous" attitudes about life and related concepts on a semantic differential test. Factor analysis yielded three meaningful factors: active suicidal desire, specific plans for suicide, and passive suicidal desire [16]. A total number of 36 were obtained on the suicidal scale by multiplying each of the questions by 2 and adding them. Those who scored 19(the median) and above were considered as having high suicidal intention while those below 19 were considered as having a low suicidal intention.

#### The General Health Questionnaire (GHQ)

David Goldberg designed the GHQ. It is a self-administered screening instrument anticipated at detecting non-psychotic psychiatric disorders. The questionnaire focuses on two major areas that are inability to carry out the usual function and the appearance of new and distressing phenomena. It is designed for the common population, clinic attendants, adolescent, and adults. The original GHQ consists of 60 items. Other versions are GHQ-30(30 items), GHQ- 28(28 items), and GHQ -12(12 items). The respondents will be asked to choose one of the four possible options. The 12-item General Health Questionnaire (GHQ-12) has been extensively used as a short screening instrument, producing results that are comparable to longer versions of the GHQ. In a study, the validity of the GHQ-12 was determined against the Composite International Diagnostic Interview (CIDI). It has a sensitivity of 68% and specificity of 70% [17]. GHQ-12 had been validated in Nigerian languages [17].

The 12-item version of the instrument was used in this study. The GHQ-12 is scored using the binary method (0-0-1-1).

Each item has four possible responses, typically being 'not at all', 'no more than usual', 'rather more than usual' and 'much more than usual'. Therefore a score of 3 and above will be used as an indication of psychiatric morbidity 15. All the proportion of subjects who are GHQ-12 positive and 10% of those who are GHQ-12 negative will be determined for the purpose of analysis. In a study by Gureje, the alpha coefficient of the GHQ-12 was 0.82 [18].

### Procedure

This is a cross-sectional study undertaken at HIV clinics of LAUTECH Teaching Hospital Osogbo. All consenting eligible HIV-infected patients attending the government health facilities were continuously enrolled in this study. All registered patients with the study HIV clinic that were 18 years or older who understand English Language and not physically and mentally sick were enrolled in this study. Research assistants were trained in the administration and collection of questionnaires.

### Ethical Consideration

Ethical approval was obtained from the Research Ethics Committee of the LAUTECH Teaching Hospital, Osogbo. Participation was voluntary and informed consents were obtained from the patients and the information provided were kept confidential and the study was non –malevolence.

### Data Analysis

The Statistical Package for Social Sciences (SPSS version 21) was used for data analysis. The socio-demographic details of respondents were reported using descriptive statistics such as frequency, means, and standard deviation (SD). Chi-square test, Student t-test, and correlations were used to determine the relationship between suicidal ideation and the socio demographic variables. Multivariate statistical techniques such as binary logistic regression were employed to identify the factors that were significantly associated with suicidal ideation among the study participants. The confidence interval will be set at 95% and all tests were two-tailed. Statistical significance was considered at a p-value less than 0.05.

## III. RESULTS

Table 1; Socio demographic Variable of the Respondents

Variable	Frequency	Percentage (%)
<b>Age range(years)</b>		
0-20	14	4.3
21-40	111	34.0
41-60	162	49.7
Above 60	39	12.0
<b>Sex</b>		
Male	137	42.0
Female	189	58.0
<b>Marital Status</b>		

Single	31	9.6
Married	267	81.9
Divorce	5	1.5
Separated	23	7.1
<b>Tribe</b>		
Yoruba	303	92.9
Igbo	18	5.5
Hausa	5	1.5
<b>Educational Status</b>		
Primary	52	16.0
Secondary	135	41.5
Tertiary	121	37.1
Nil	18	5.5
<b>Occupation</b>		
Trader	122	37.5
Artisan	92	28.3
Civil servant	95	29.2
Clergy	6	1.8
Student	10	3.1
<b>Average monthly income</b>		
Less than 18,000	247	75.8
More than 18,000	79	24.2
<b>Religion</b>		
Christian	235	72.1
Islam	91	27.9

Three hundred and twenty-six (326) questionnaires were distributed, completed, and returned, giving a response rate of 100%. Table 1, shows the socio-demographic characteristics of respondents. One hundred and thirty-seven (41.8%) of the respondents were male while most 189 (58.2%) were female, thirty-one (9.6%) were single, majority of the respondents 266 (81.9%) were married, 5(1.5%) had divorced while 23(7.1%) were separated. Majority 303 (92.9%) were from Yoruba ethnic group, 18 (5.5%) were Igbo and 5 (1.5%) were Hausa.

Fifty-two (16%) of the respondent had primary education only, most 135 (41.5%) had secondary education, 120 (36.9%) had tertiary while 18(5.5%) had no formal education. Majority of the respondent 122 (37.4%) were traders, 92 (28.3%) artisans, 96 (29.4%) were civil servant, 6 (1.8%) were clergy and 10 (3.1%) were student. A higher proportion of the respondents 235(72.1%) practice Christianity while 91 (27.9%) were Muslims.

Table 2: Illness Related Burden

Variable	Frequency	Percentage (%)
<b>Last viral load</b>		
Less than 20	211	64.7
More than 20	115	25.3
<b>Reaction to the viral load</b>		
It does not bother me at all	164	50.3
It bothers me a little	79	24.2
It bothers me for sometimes	83	25.5
<b>Rate the severity of HIV/AIDS symptom</b>		
1 (not severe) -	311	95.4
10 (more severe)	15	4.4
<b>How do you perceive social support</b>		
Not available	121	37.1
Available	205	62.9
<b>Psychiatric Morbidity</b>		
Negative	200	61.3
Postive	126	38.7

Table 2 above showed that two hundred and eleven (64.7%) had their viral load less than 20 cells per mill as at the last clinic visit, 50.3% were not bothered about their viral load, 24.3% were bothered a little while 25.5% were bothered them for sometimes. A significant proportion of 95.4% rated the severity of HIV/AIDS symptom as severe while (4.6%) rated it to be more severe.

One hundred and twenty-one (37.1%) of the respondents didn't have social support while 62.9% had social support. One hundred twenty-six (38.7%) of the respondent had psychiatric morbidity

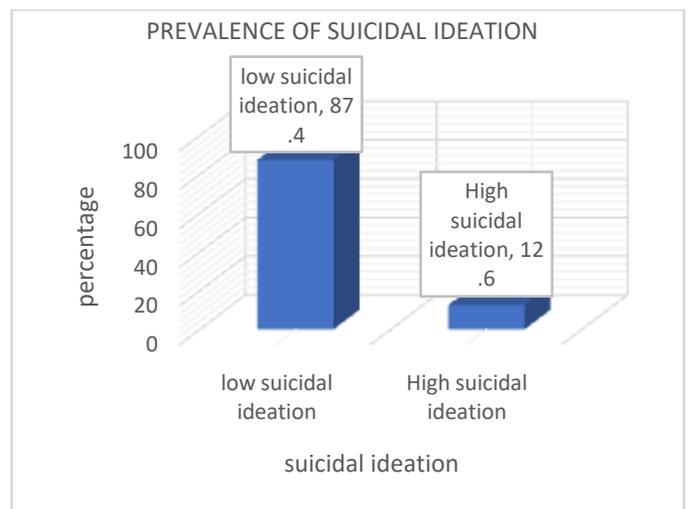


Figure 1; Suicidal Ideation

Figure 1 above showed prevalence of suicidal ideation among the respondents. Forty one (12.6%) of the respondents had high suicidal ideation while two hundred and eighty-five (87.4%) had low suicidal ideation.

Table 3: Association of Suicidal Tendencies with Socio-demographic Characteristics of the Respondents

Variable	Low suicidal tendency	High suicidal tendency	$\chi^2$	Df	P-value
	n(%)	n(%)			
<b>Age in group</b>					
0-20	6(42.9%)	8(57.1%)	38.6	3	<0.001
21-40	97(87.4%)	14(12.6%)			
41-60	153(94.4%)	9(5.6%)			
Above 60	29(74.4%)	10(25.6%)			
<b>Sex</b>					
Male	112(85.4%)	20(14.6%)	0.88	1	0.399
Female	168(88.9%)	21(11.1%)			
<b>Marital status</b>					
Single	25(80.6%)	6(19.4%)	14.9	3	0.002
Married	235(88.0%)	32(12.0%)			
Divorced	2(40.0%)	3(60.0%)			
Separated	23(100%)	0(0)			
<b>Occupation</b>					
Trader	114(93.4%)	8(6.6%)	30.29	4	<0.001
Artisan	78(84.8%)	14(15.2%)			
Civil servants	85(88.5%)	11(11.5%)			
Students	6(42.9%)	8(57.1%)			
Clergy	2(100.0%)	0(0)			
<b>Religion</b>					
Christianity	204(86.8%)	31(13.2%)	0.289	1	0.711
Islam	81(89.0%)	10(11.0%)			
<b>Monthly allowance</b>					
Less than 18000	217(87.9%)	30(12.1%)	0.351	2	0.839
18.000 and more	67(85.9%)	11(14.1%)			
<b>Educational status</b>					
Primary	46(88.5%)	6(11.5%)	4.709	3	0.194
Secondary	113(83.7%)	22(16.3%)			
Tertiary	108(89.3%)	13(10.7%)			
Nil	18(100%)	0(0)			
<b>Viral load</b>					
Less than 20cells/ml	179(84.8%)	32(15.2%)	3.647	1	0.079

More than 20 cell/ml	106(92.2%)	9(7.9%)			
<b>Reaction to the viral load</b>					
It does not bother me at all	146(89.0%)	18(11.0%)	6.88	2	0.032
It bothers me a little	73(92.4%)	6(7.6%)			
It bothers me for sometimes	66(79.5%)	17(20.5%)			
<b>Rate the severity of HIV/AIDS symptom</b>					
1 (not severe) -	276(88.7%)	35(11.3%)	10.75	1	0.006
10 (more severe)	9(60.0%)	6(40%)			
<b>How do you perceive social support</b>					
Not available	111(91.7%)	10(8.3%)	3.54	1	0.084
Available	174(84.9%)	31(15.1%)			
<b>Psychiatric morbidity</b>					
Negative	184(92.0%)	16(8.0%)	9.838	1	0.003
Positive	101(80.2%)	25(19.8)			

Table 3 shows the association of suicidal ideation with socio-demographic characteristics of the respondents based on the comparison of 195 subjects without suicidal ideation and the 41 subjects with suicidal ideation. Students had the highest proportion (57.1%) with suicidal ideation compared with other occupations this difference is statistically significant ( $\chi^2=38.6$ ,  $p < 0.001$ ). In addition, three (60.0%) respondents of those who were divorced from other marital status had suicidal ideation. This observation is statistically significant ( $\chi^2 = 14.9$ ,  $p$  value=0.002).

A significant proportion (20.5%) of those who were bothered sometimes with their viral load had suicidal ideation compared to those who were bothered a little and those who were not bothered ( $\chi^2 = 6.88$ ,  $p=0.032$ ). In addition, more of those who rated their symptoms as severe (40.0%) had suicidal ideation than to who rated their symptoms as not severe the observation is statistically significant ( $\chi^2 = 10.75$ ,  $p=0.006$ ). Those who had psychiatric morbidity (19.0%) had more suicidal ideation than those without psychiatric morbidity the observation is statistically significant ( $\chi^2 = 9.83$ ,  $p=0.003$ ).

Male respondents, Christians, those with an average income of 18,000, secondary school education, and availability of social support had a slightly higher tendency of suicidal ideation in the respective groups. However, these observations are not statistically significant.

Table 4; the Socio-Demographic and Clinical Variables Independently Associated with Suicidal Ideation by Logistic Regression Analysis

Variable	B	OR	P-Value	95% CL	
				lower	Higher
<b>Age range</b>					
0-20	1.291	3.638	0.293	0.328	40.345
21-40	-1.035	0.355	0.99	0.104	1.215
41-60	-1.519	0.219	0.010	0.069	0.669
>60(ref)					
<b>Occupation</b>					
Students	3.963	52.611	0.001	4.031	597.684
Clergy	-15.57	0.00	1.000	0.000	0.000
Civil servants	1.702	5.825	0.039	1.094	31.023
Artisan	2.427	11.320	0.005	2.075	61.766
Trader(ref)	Ref	Ref			
<b>Marital Status</b>					
Single	18.066	70140691.60	0.998	0.000	
Married	18.072	70541532.27	0.998	0.000	
Divorce	22.386	52730191.77	0.998	0.000	
Separated (ref)	Ref	ref			
<b>Reaction to the viral load</b>					
It bothers me for sometimes	1.308	3.698	0.010	1.369	9.989
It bothers me a little	-1.609	0.791	0.042	0.042	0.943
It does not bother me at all(ref)	Ref	ref			
<b>Rate the severity of HIV/AIDS symptom</b>					
10 (more severe)	1.846	6.329	0.90	0.75	53.407
1 (not severe) (ref)	Ref	Ref			
<b>Psychiatric morbidity</b>					
Positive	1.237	3.445	0.006	1.434	8.277
Negative	Ref	Ref			

Table 4 shows the results of logistic regression analysis with a 95% confidence interval using the stepwise method to explore the factors independently associated with suicidal ideation. The socio-demographic and clinical variables were entered as independent variables and suicidal ideation was entered as the dependent variable.

The result revealed that the risk of suicidal ideation was 0.21 fold decrease among those between the ages of 41 to 60 compared with those above 60 years (B=-1.1519, P=0.010). In addition, the risk of suicidal ideation was 52.6 fold increase among the students (B=3.963, P = 0.001), 5.85fold increase

among civil servants (B=1.702, P = 0.039 and 11.37 fold increase among artisan compared with the traders along. (B=2.427, P = 0.005). Those with psychiatric morbidity had 3.44 fold increase suicidal ideation compared with those without psychiatric morbidity (B= 1.237, Pvalue=0,006).

Marital status, rating of severity of HIV symptoms were not significant.

#### IV. DISCUSSION

The study determined the prevalence of suicidal ideation among people living with HIV/AIDS in Osogbo Southwestern Nigeria. It also determined the factors associated with suicidal ideation. Furthermore, the study determined the actual predictors of suicidal ideation among patient living with HIV/AIDS in Osogbo Southwestern Nigeria.

Most of the respondents were between 41 and 60 years. The mean age of the respondent is 45 years. This was lower than 37.22, 36.7 and 37.35 reported in China, Uganda and Southwestern Nigeria respectively [14, 19, 20]. Involvement of various Governmental and Non-Governmental Organizations in an awareness campaign on HIV/AIDS among adolescents and young adults may be responsible for the increase in the mean age of those affected with the disease. Females were more represented in population this is similar to other findings globally. Women are still the main target of the disease this calls for global attention [14, 19, 21]. Most of the respondents were traders this is in keeping with the location of the study. Petty trading is common among women of osogbo Southwestern Nigeria. Most of the respondents were married and from predominantly Yorubas. This is inconsonant with studies in Southwestern Nigeria [14, 22]. A significant proportion have a monthly income less than the current minimum wage in Nigeria, this may be due to the worrisome non-payment of salaries and the poor socio-economic state of the country as at the time of collecting the data.

The majority of the respondent have their viral load below 20 copies per ml this is a sign of effective treatment and compliance among the population. Half of the population were not bordered about their viral load this may result in the relatively stable health they are enjoying because of the low viral load, however, effective counseling might have help the population. Majority attending the clinic have less symptoms of HIV/AIDS as rated by the managing physician. This may be in line with reduction in the viral load, possible compliance and regular clinic attendance, coupled with the fact that many perceived that they have social support.

The prevalence of psychiatric morbidity is 38.7% this is lower than 71.4% among people living with AIDS in Kenya [23].

In a study by Berger-Greenstein, Cuevas, Brady, Trezza, Richardson and Keane, they reported that 72.9% of people living with AIDS met the criteria for Major Depressive Disorder (Berger-Greenstein et al., 2007) while Adewuya

found that the prevalence of psychiatric diagnosis among people living with AIDS was 59.1% [24].

The prevalence of suicidal ideation among the population is 12.6%, this is slightly lower than 13.6% reported by Ogundipe et al. in South Western Nigeria [14], lower than 34.7% in South Southern part of Nigeria [15], 18% in china [25], 20.0% reported by Haller and Miles [8] and 59% reported among HIV men in Houston [7].

Factors associated with suicidal ideation were occupation (students, artisan and civil servant), reaction to viral load severity of the symptoms (those it borders sometimes and those it borders a little) and psychiatric morbidity and Age group (41-60) among the respondent while the predictors of suicidal ideation.

Occupation is a major predictor of suicidal ideation in this study. This study was conducted when the nation socioeconomic and political instability. Salaries were not paid correctly and regularly. Students, artisans and civil servants were predictors of high suicidal tendencies among the respondents. Students are likely to be young, single and dependent on their parents who may be affected by the dangling economic situation. Students are faced with the rigor of academic activities which can increase the impact of HIV/AIDS leading to high suicidal tendencies. The emotional impact of the disease may also affect the academic performance leading to high suicidal tendencies. Even without HIV/AIDS suicidal risk is common among students [26]. Artisans were greatly affected because they depend on their skills and hand most of those that should patronize them are also affected by the economic situation. Despite free distribution of the antiretroviral drugs other unmet expenses may be stress full resulting to hopelessness and increase suicidal tendencies. Civil servants directly depend on government for their monthly allowance. Civil servant living with retroviral infection may be financial unstable leading to worthlessness and hopelessness. Apart from free distribution of antiretroviral drugs, government, policy makers and Non-Governmental Organizations (NGOs) should see to the welfare of persons living with HIV/AIDS.

Emotional reaction to the severity of the viral load is a cardinal predictor of suicidal tendencies in this study. Increase severity of the HIV symptom can negatively affect the quality of life. (QOL) [27]. Higher HIV symptom severity may be exacerbated by an individual's lack of emotion regulatory skills. Conversely, an individual's emotion regulatory processes may become more dysregulated in the context of elevated levels of HIV symptom severity. Therefore, these processes may theoretically function synergistically to be related to a lower QOL. Low quality of life may increase the rate of suicidal tendency. Adequate effort must be employed by the managing team to reduce the severity of the symptoms of HIV in order to reduce the suicidal tendency.

The presence of psychiatric morbidity is a predictor of high suicidal tendency among the respond. This is similar to

previous observations (Haller, and Miles, 2003; Peng, Lee, Morisky, Yeh, Farabee, Lan, Chen and Lyu., 2010). Chronic medical conditions such as human immunodeficiency virus (HIV) infection have been linked to elevated stigma and discrimination, psychological distress, and poor social support. Almost half of individuals diagnosed with HIV suffer from one or more comorbid psychiatric disorders ( Hill, Golin, Gottfredson, Pence, DiPrete, Carda-Auten, Groves, Napravnik, Wohl, Knight and Flynn, 2019). Comorbidity with HIV infection carries a greater risk of suicidal tendency. The collaborative effort to reduce comorbid psychological disorder by the managing team shouldn't be overemphasized.

Those between the ages of 41 and 60 have a lot of responsibilities which may further increase the stress of coping with the burden of HIV/AIDS and predispose them to have suicidal ideation. The economic situation of the country has been worrisome thereby affecting monthly allowances and increasing the burden of the disease predisposing to suicidal ideation. The presence of medical and psychiatric morbidity increases the burden of the illness.

## V. CONCLUSION

The results of this study show that patients with HIV/AIDS receiving follow-up care experience considerable undetected psychiatric morbidity and suicidal ideation. The most important associated factors of suicidal ideation Age group. Marital status, occupation, reaction to viral load severity of the symptoms and psychiatric morbidity among the respondent.

More rigorous research is needed to put mental health services for people living with HIV/AIDS in Nigeria on the healthcare agenda.

## VI. LIMITATION OF THE STUDY

In spite of this study providing data for comparison for future studies on suicidal ideation among similar population in other HIV-related support service centers; the findings may be limited at representing the general population of PLWHA adequately because it is a hospital based study among out-patient clinic attendees. Additionally, cultural norms such as moral objections to suicide could have affected appropriate response to enquiries about suicidal ideation. Again, findings in this study may be limited because it is questionnaire-based. The identified associated factors of suicidal ideation in this study are by no means exhaustive and causality cannot be implied due to the study's design. In effect, future studies to address the limitations in this study are indicated.

## VII. RECOMMENDATION

Despite the tremendous activities of the Government and the Non-governmental Organization in the management of HIV infection, more collaborative effort should be targeted towards provision of a welfare scheme and reduction of comorbidity.

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